



Community Development Department Building Inspection Division
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REQUIREMENTS FOR THE INSTALLATION OF STATIONARY LEAD-ACID BATTERY SYSTEMS

The following criteria shall apply to all stationary lead-acid battery systems (including those using valve-regulated lead acid (VRLA) gel-cell or absorbent glass mat (AGM) battery types) having an electrolyte capacity of more than 100 gallons in sprinklered buildings or 50 gallons in unsprinklered buildings used for facility standby power, emergency power or uninterrupted power supplies.

NOTE: *Submittals for stationary lead-acid battery systems below the quantities listed above need not comply with Uniform Fire Code (UFC) Article 64 requirements.*

Submittals for stationary lead-acid battery systems exceeding the quantities listed above shall comply with the following:

- ☐ **UFC, 6404.2. Safety Venting.** Batteries shall be provided with safety venting caps. *Provide manufacturer specification sheets to indicate compliance.*
- ☐ **UFC, 6404.3. Occupancy Separation.** In other than Groups A, E, I and R Occupancies, battery systems shall be located in a room separated from other portions of the building by a minimum one-hour fire-resistive occupancy separation. In Groups, A, E, I and R Occupancies, battery systems shall be located in a room separated from other portions of the building by a two-hour fire-resistive occupancy separation. *Show complete wall construction details in accordance with the UBC, Chapter 7. Penetration and opening protection shall also be detailed as required by Section 302.3 and Chapter 7 of the UBC.*
- ☐ **UFC, 6404.4. Spill Control.** Each rack of batteries, or group of racks shall be provided with a liquid-tight 4-inch spill control barrier which extends at least 1 inch beyond the battery rack in all directions. *Indicate the outline of the spill control barrier and provide complete construction details on the drawings.*

Exception: Battery systems using gel-cell and AGM battery types.

- ☐ **UFC, 6404.5. Neutralization.** An approved method to neutralize spilled electrolyte shall be provided. The method shall be capable of neutralizing a spill from the largest lead-acid battery to a pH between 7.0 and 9.0. *Provide a detailed description for the proposed method of neutralization and manufacturer specification sheets for products.*

Exception: Battery systems using gel-cell and AGM battery types.

- ☐ **UFC, 6404.6. Ventilation.** Ventilation shall be provided in accordance with the Mechanical Code and the following:
 1. The ventilation system shall be designed to limit the maximum concentration of hydrogen to 1.0 percent of the total volume of the room in accordance with nationally recognized standards, or
 2. Continuous ventilation shall be provided at a rate of not less than 1 cubic foot per minute per square foot of floor area of the room.

Complete system design details (including calculations if applicable) shall be included on the drawings and shall be stamped by a Mechanical Engineer.

- ☐ **UFC, 6404.7. Signs.** Doors into rooms or buildings containing stationary lead-acid battery systems shall be provided with approved signs. The signs shall state that the room contains lead-acid battery systems, that the battery room contains energized electrical circuits and that the battery electrolyte solutions are corrosive liquids. *Incorporate as a verbatim note on to the drawings.*
- ☐ **UFC, 6404.8. Seismic Protection.** Battery systems shall be seismically braced in accordance with the Building Code. *Provide details on the drawings including structural calculations.*
- ☐ **UFC, 6404.9. Smoke Detection.** An approved automatic smoke detection system shall be installed in such areas and supervised by an approved central, proprietary or remote station service or a local alarm which will give an audible signal at a constantly attended location. Smoke detection system shall be submitted separately for review and permit. *Incorporate as a verbatim note on to the drawings.*

FIRE AND ENVIRONMENTAL PROTECTION DIVISION REQUIREMENTS

- ☐ Submittals for stationary lead-acid battery systems having a free-flowing liquid capacity exceeding 10 gallons shall include a completed Hazardous Materials Management Plan (HMMP).
- ☐ Submittals for stationary lead-acid battery systems employing gel-cell or AGM battery types, regardless of quantity, shall include a completed Declaration of Exemption.

Contact the Fire and Environmental Protection Division at (650) 903-6378 for the appropriate forms.